



WCPCG-2010

Social stories: an intervention technique for children with Autism

Selda Ozdemir^a

Received January 12, 2010; revised February 3, 2010; accepted March 6, 2010

Abstract

The importance of social competence and acquisition of social skills in various domains is not in question. While typically developing children may intuitively recognize what is appropriate behaviour in different social situations, children with autism often find social situations confusing and appear isolated and oblivious to the outside world. A Social Story is a concise narrative about a situation, concept, behaviour, or social skill that is written and implemented according to specific guidelines. The purpose of this study was to provide information on how to write and implement Social Stories as an intervention technique and examine theoretical background of the intervention. Information on the research evidence of the effectiveness of Social Stories will be examined in the study as well.

© 2010 Elsevier Ltd. Open access under [CC BY-NC-ND license](#).

Keywords: Social stories, autism, theory of mind, social skills, intervention.

1. Introduction

Social Stories are short stories intended for children with autism to understand social situations. These stories are used to help children with autism predict and anticipate specific situations as well as teaching appropriate behavior within situation. The goals of Social Stories are to share accurate social information and to promote social understanding. These short, individualized stories provide support in new and sometimes confusing social experiences (Gray, 1995). A Social Story also helps ensure a child's accurate understanding of social information for a given setting (Gray, 1998) and gives instruction regarding the who, what, when, where, and why of a social situation (Atwoord, 1998; Lorimer, Simpson, Myles, & Ganz, 2002). In general, Social Stories can be accepted as a priming strategy identifying potentially difficult situations for a child with autism, prior to the child's being involved in the activity and preparing the child to understand or manage the situation.

According to Wing (1988), the social interaction difficulties of individuals with autism can be categorized into three groups: (a) social recognition, which is described as a lack of interest in others; (b) social communication, which includes trouble expressing one's self and having a limited understanding of body language; and (c) social imitation and understanding, which includes an inability to understand the thoughts or feelings of others or to engage in imaginative play. Furthermore, research has demonstrated that individuals with autism display significant deficits in social skills (Njardvik, Matson, & Cherry, 1999), understanding facial expression (Celani, Battacchi, & Arcidiacona, 1999; Klin, Sparrow, De Bildt, Cicchetti, Cohn, & Volkmar, 1999), empathy (Dyck, Ferguson, & Shocher, 2001; Yirmiya, Sigman, & Zacks, 1994), imitation (Hobson & Lee, 1999), and social initiation with peers

(Hauck, Fein, Waterhouse, & Feinstein, 1995). Unless appropriate social behaviors become part of the child's repertoire, the long-term goal of functioning independently in the community may never be realized.

According to the Theory of Mind hypothesis individuals with autism have profound difficulty interpreting a person's actions within a mentalistic framework and, therefore; their learning style is qualitatively different from typically developing peers (Power & Jordan, 1997). Theory of Mind is the ability of an individual to understand the mental states of themselves and others (Yun Chin & Bernard-Opitz, 2000). Garfield, Peterson, & Perry (2001, pp. 495) define ToM as describing "...whatever knowledge guides propositional attitude attribution and the explanation and prediction of behavior by means of inner states and processes". Due to the lacking ToM, individuals with autism have difficulty understanding that others have perspectives different from their own (Leslie, 1987), and are unable to appreciate other people's intentions, needs and desires (Greenway, 2000). Consistent with the Theory of Mind (Baron-Cohen, 1995), Gray (2003) puts an emphasis upon the reciprocal nature of the social impairment and advocates that all authors of Social Stories need to develop an acute understanding and empathy towards the perspectives held by the person with autism.

The construction of a Social Story uses concrete, easy to understand text enhanced by visual supports. Since children with autism have many problems with auditory processing (Gillberg & Coleman, 2000), they may find it easier to elicit information from a visual format as opposed to auditory input. Indeed, research suggests that children with autism tend to be visual learners, and responds best when things are predictable in nature. By reducing the ambiguity of social settings, the child is more able to understand what is expected from him. Thus, given the unique learning needs of individuals with autism, Social Stories may provide an effective strategy to improve social competence. In addition, computers have been successfully used in Social Story interventions. Gray (1995) suggests allowing individuals with autism to read Social Stories from the computer screen to increase their interest in reading the story independently.

Gray (2003) states that a Social Story should be individualized and it should consist of four basic types of sentences; (a) descriptive, (b) directive, (c) perspective, and (d) affirmative. Descriptive sentences define who is involved, where the situation takes place, what is happening, what is expected, and why. Directive sentences explain to the child what is expected of and how to respond to the situation, by using "I will try..." statements. Perspective sentences describe what others may be feeling or thinking. Finally, affirmative sentences are used to help the child define or remember the story better. These four basic sentence types and a ratio that defines their frequency are the most important components of the Social Story. Gray (2003) suggests that a Social Story should have a ratio of 2 to 5 descriptive, perspective, and/or affirmative sentences for every 0 to 1 directive sentence. This means that for every directive sentence in the Story there will be two to five other sentences in the story. This ratio should be maintained regardless of the length of a Social Story and applies to the story as a whole. The ratio exists because it emphasizes one expected behavior at a time. Whereas the first three sentences establish the setting, people's perspectives, and a particular command, the single remaining directive sentence highlights the main lesson-the appropriate behavior for the child.

The text and illustrations should reflect the student's reading skills, attention span, and cognitive ability. The child's needs determine the topic of the story, while the child's perspective determines the focus of the story. The title of a Social Story should include the general idea of the story, and there has to be an introductory body and conclusion. The story is written in the first person, as if the child is telling the story. When talking about a negative behavior, the third-person perspective is recommended in order to sound less threatening. In addition, the story must use flexible language such as the words "usually" and "sometimes", rather than "always" or "never". In addition, it is useful to check comprehend of a Social Story material by having the student answer comprehension questions (Gary & Garand, 1993).

Social Stories has been implemented for a variety of purposes such as (a) reducing aggressive behavior (e.g. Adams et al., 2004; Cullain, 2000; Kuoch & Mirenda, 2003), (b) teaching adaptive skills (Barry & Burlew, 2004; Brownell, 2002), and (c) teaching social skills (Feinberg, 2001; Ozdemir, 2008a; Tierman & Goldstein, 2004), (d) increasing appropriate behaviors (Agosta, Graetz, Mastropieri, & Scruggs, 2004; Cullain, 2000; Graetz, 2003; Kuoch & Mirenda, 2003, Smith, 2001), (e) increasing the use of appropriate social skills (Barry & Burley 2004; Hagiwara & Myles, 1999; Pettigrew, 1998), (f) increasing greeting behavior and initiation of play activities (Feinberg, 2001), (g) increasing on-task behavior (Brownell, 2002), (h) increasing appropriate meal-eating behavior (Staley, 2001), and (i) decreasing precursors of tantrum behaviors (Simpson & Myles, 2002).

Overall, research supports that properly constructed and visually presented Social Stories may decrease the problem behaviors of children with autism and increase the children's adaptive behaviors (Ozdemir, 2008b). Although an increasing amount of literature suggests that Social Stories can be effective for individuals diagnosed with autism, many lack rigorous methodological standards and use the Social Stories intervention in conjunction with other treatments, making it difficult to identify the source of the behavioral change. Thus, the Social Stories intervention is a relatively new with only a handful of empirical studies to validate its use as an effective behavioral intervention. Additional empirical Social Stories research is essential to further develop this promising intervention in the field of autism. As a very promising intervention, educating professionals and teachers on how to use this effective intervention will add one more piece to the difficult puzzle of remediating social and behavioral problems of children with autism.

References

- Adams I., Gouvousis, A., Van Lue, M., & Waldron, C. (2004). Social story intervention: Improving communication skills in a child with autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities*, 19(2), 87-84.
- Agosta, E., Graetz, J. E., Mastropieri, M. A., & Scruggs, T. E. (2004). Teacher-researcher partnerships to improve social behavior through social stories. *Intervention in School and Clinic*, 39(5), 276-287.
- Attwood, T. (1998). *The links between social stories, comic strip conversations and the cognitive models of autism and Asperger's syndrome*. Retrieved November 20, 2001, from <http://www.tonyayywood.com/paper5.htm>.
- Baron-Cohen, S. (1995). Mindblindness. Cambridge, MA: MIT Press. Leslie, A (1987). Pretence and representations: The origins of "theory of mind." *Psychological Review*, 94, 412-426.
- Barry, L. M., & Burley, S. B. (2004). Using social stories to teach choice and play skills to children with autism. *Focus on Autism and Other Developmental Disabilities*, 19, 45-51.
- Brownell, M. D. (2002). Musically adapted social stories to modify behaviors in students with autism: Four case studies. *Journal of Music Therapy*, 39, 117-144.
- Celani, G., Battacchi, M. W., & Arcidiacono, L. (1999). The understanding of the emotional meaning of facial expressions in people with autism. *Journal of Autism and Developmental Disorders*, 29, 57-66.
- Cullain, R. (2000). The effects of social stories on anxiety levels and excessive behavioral expressions of elementary school-aged children diagnosed with autism. (Doctoral dissertation: The Union Institute). *Dissertation Abstracts International*.
- Dyck, M. J., Ferguson, K., & Shocher, I. M. (2001). Do autism spectrum disorders differ from each other and from non-spectrum disorders in emotion recognition tests? *European Child & Adolescent Psychiatry*, 10, 105–116.
- Feinberg, M. J. (2001). *Using social stories to teach specific social skills to individuals diagnosed with autism*. Unpublished doctoral dissertation, California School of Professional Psychology, San Diego.
- Garfield, J., Peterson, C., & Perry, T. (2001). Social cognition, language acquisition and the development of the theory of mind. *Mind & Language*, 16(5), 494-541.
- Gillberg, C., & Coleman, M. (2000). *The biology of autistic syndromes*. London: MacKeith Press.
- Gray, C. (1995). Teaching children diagnosed with autism to "read" social situations. In K. Quill (Ed.), *Teaching children with autism: Strategies to enhance communication and socialization* (pp.219-241). Albany, NY: Delmar.
- Gray, C. (1998). Social stories 101. *The Morning News*, 10(1), 2-6. Michigan: Jenison Public Schools.
- Gray, C. (2003). *Social Stories*. Retrieved April 13, 2003, from <http://www.thegraycenter.org>.
- Gray, C., & Garand, J. (1993). Social Stories: Improving responses of students with autism with accurate social information. *Focus on Autistic Behavior*, 8, 1-10.
- Graetz, J. E (2003). Promoting social behaviors for adolescents with autism using social stories. Unpublished dissertation, George Mason University.
- Greenway, C. (2000). Autism and Asperger syndrome: Strategies to promote prosocial behaviors. *Educational Psychology in Practice*, 16, 469-486.
- Hagiwara, T., & Myles, B. S. (1999). A multimedia Social Story intervention: Teaching skills to children with autism. *Focus on Autism and Other Developmental Disabilities*, 14, 82-95.
- Hauck, M., Fein, D., Waterhouse, L., & Feinstein, S. (1995). Social initiations by autistic children to adults and other children. *Autism and Other Developmental Disorders*, 25, 579-595.

- Hobson, R. P., & Lee, A. (1999). Imitation and identification in autism. *Journal of Child Psychology and Psychiatry*, 40, 649-659.
- Klin, A., Jones, W., Schultz, R., Volkmar, F., & Cohen, D. (2002). Visual fixation patterns during viewing of naturalistic social situations as predictors of social competence in individuals with autism. *Achieves of General Psychiatry*, 59, 809-816.
- Kuoch, H., & Mirenda, P. (2003). Social Story interventions for young children with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, 18, 219-227.
- Leslie, A. M. (1987). Pretence and representation: The origins of "theory of mind." *Psychological Review*, 94, 412–426.
- Lorimer, P. A., Simpson, R. L., Myles, B. S., & Ganz, J. B. (2002). The use of social stories as a preventative behavioral intervention in a home setting with a child with autism. *Journal of Positive Behavior Interventions*, 4(1), 53-60.
- Njardvik, U., Matson, J.L., Cherry, K. E. (1999). A comparison of social skills in adults with Autistic disorder, Pervasive Developmental Disorder Not Otherwise Specified, and Mental Retardation. *Journal of Autism and Developmental Disorders*, 29, 287-295.
- Pettigrew, J. (1998). *Effects of the modelling of verbal and nonverbal procedures for interaction with peers through social stories* (Doctoral dissertation, Texas Woman's University, 1998). *Dissertation Abstracts International*, 59, 1452.
- Powell, S., & Jordan, R. (1997). *Autism and Learning-A guide to good practice*. London: Fulton.
- Simpson, R. L., & Myles, B. S. (1998). Aggression among children and youth who have Asperger's Syndrome: A different population requiring different strategies. *Preventing School Failure*, 42(4), 149-153.
- Smith, C. (2001). Using social stories to enhance behaviour in children with autistic spectrum difficulties. *Educational Psychology in Practice*, 17, 337-345.
- Staley, M. J. (2001). *An investigation of social-story effectiveness using reversal and multiple-baseline designs*. Unpublished doctoral dissertation, University of Kansas.
- Thiermann, K. S., & Goldstein, H. (2001). Social stories, written text cues, and video feedback: Effects on social communication of children with autism. *Journal of Applied Behavior Analysis*, 34, 425-446.
- Wing, L. (1988). The continuum of autistic characteristics. In E. Schopler & G. B. Mesibow (Eds.), *Diagnosis and assessment in autism* (pp.91-110). New York Plenum Press.
- Yirmiya, N., Sigman, M. D., Kasari, C., & Mundy, P. (1992). Empathy and cognition in high functioning children with autism. *Child Development*, 63, 150-160.
- Yun Chin, H. & Bernard-Opitz, V. (2000). Teaching Conversational Skills to Children with Autism: Effect on the Development of a Theory of Mind. *Journal of Autism and Developmental Disorders* 30(6), 569-583.